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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/874,219

06/06/2001

Masayuki Sakata

Q64862

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06/01/2005

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EXAMINER

HABTE, ZEWDU

ART UNIT

PAPER NUMBER

2661

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/874,219

Applicant(s)

SAKATA, MASAYUKI

Examiner

Zewdu Habte

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2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 7-9 and 13-15 are rejected under 35 U.S.C. 102(e) as being unpatentable by Tosey et al. (US 6392990 B1).

As to claims 1 and 7, Tosey discloses Hub A at 33, Hub B at 34, Network Computing Device A at 31 and Network Computing Device B at 32, connected with lines 41-45 using ports 37-40 (**a plurality of hubs and terminals comprising a plurality of ports**) illustrated in Fig. 3. Network Computing Device A's port 37 (**a first port**) is connected to Hub A (**a first hub**) using line 41, and Network Computing Device A's port 38 (**a second port**) is connected to Hub B (**a second hub**) using line 41.

Tosey teaches that one of the two cards in the Network Computing Device such as card 25 in Fig. 2 (it takes the same principle to execute more than one Computing Devices, col. 10, lines 6-17), is designated as a primary network interface card and all of the components such as line 27 and Hub A, are in operation (**activating one of the lines connected with each of the terminals**) (col. 6, lines 15-18).

As illustrated in Fig. 3, connection lines 41, 45, 44, and 51 are circularly connecting Hub A and Hub B in the network. Also, Tosey teaches that when there is an interface failure, for example on line 41, which is connected to primary network interface card's port 37 on active Network Computing Device A (**a fault on the first port of a terminal**), the IP address associated with the failed network interface card is reassigned (**inactivating the first port**) to the redundant network interface card (**activating the second port**), which is network interface card's port 38 (col. 8, lines 10-13). Until the failure occurs, redundant network interface cards have no IP address, which makes all of its connecting components inactive. As illustrated in Fig.2, redundant network interface card 26 and redundant line 28 that is the line connecting the two hubs are inactive.

As to claims 2 and 8, Tosey teaches that detecting a fault on the first port of a terminal connected with the activated with the activated line [col. 8, lines 1-3];

inactivating (reassigning the IP address associated with the failed network interface card 25) the first port [col. 8, lines 10-12]; and

activating the second ports of the same terminal (...to the redundant network interface card 26) [col. 8, lines 12-13].

As to claims 3 and 9, Tosey teaches that the IP address assignment for the second interface card notifies the external network devices (col. 8, lines 44-47).

As to claim 13, Tosey teaches that in a normal operating state network card 25 with a mobile IP address considered as a primary link through line 27 and network interface card 26 is a redundant link through line 28 with no mobile IP address assigned

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that is considered inactive link [col. 8, lines 10-13], but as illustrated in Fig. 2, Hub A and Hub B are connected consecutively (**cascade connection**) that double the number of ports available among the two hubs.

As to claim 14, Tosey teaches that the network device periodically sends a broadcast "ping" message to check the condition of each device in the network (**hubs**, since Hub A and Hub B are receiving the message, they are configured to communicate) [col. 3, lines 40-42].

As to claim 15, Tosey teaches that as soon as a fault exist, network computing device 21 reassigns IP address from card 25 to card 26, and the link that is connecting Hub A is inactive and the link that is connecting Hub B is active [col. 8, lines 10-13].

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tosey in view of Byham (US 6594231).

As to claims 4 and 10, Tosey does not specifically teach stackable hubs, but Byham discloses stackable hubs, and the top hub is connected with the bottom hub, to circularly connect the hubs with each other (Fig. 4). It would have been obvious to combine Tosey's teaching on interface redundancy with Byham's stackable hubs to

form a single logical entity. The motivation is to easily control the connections and to have a closed path between hubs.

5. Claims 5, 6, 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tosey in view of Ewing et al. (US 6176710 B1).

As to claims 5 and 11, Tosey teaches two groups of network equipment, as depicted in Fig. 3 (**partitioned into a plurality of groups**). The first group includes Network Computing Device A, Hub A and Router A. The second group includes Network Computing Device B, Hub B and Router B, but Tosey does not specifically teach providing a separate power source for each group. Ewing teaches providing dual power source for network devices in a network bay as illustrated in Fig. 4. Power supply A 418 provides power for equipment 404, 406, 408, and 410 (**one group**). Power supply B 420 provides power for equipment 405, 407, 409 and 411(**another group**). In view of this, having Tosey's teaching, it would have been obvious to one having ordinary skill in the art at the time invention was made to incorporate Ewing's teachings of a network equipment dual power supply in order to provide a separate power source for each group. The motivation is to distribute load, which eliminates the bulk of individual cable wiring needed internally to feed power to individual network equipment.

As to claims 6 and 12, Tosey teaches Hub A, which is in the first group connected to port 37, and Hub B which is in the second group connected to port 38 of the same terminal as illustrated in Fig.3.

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***Response to Arguments***

6. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zewdu Habte whose telephone number is 571-272-3115. The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Zewdu Habte (Zed)  
Examiner  
Art Unit 2661

*ZH*

ZH  
May 26, 2005

*Chau T. Nguyen*  
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